

## REMARKS

In response to the August 22, 2005 Office Action, Applicants respond to the Examiner's detailed action with the following remarks.

### Claim Rejections – 35 U.S.C. §102

In response to the Examiner's rejection of Claims 1-10 and 13-16 under 35 U.S.C. §102(b) as being anticipated by U.S. 6,096,207 by Hoffman, et. al. ("Hoffman"), Applicant respectfully requests reconsideration. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The examiner relies on Hoffman to disclose the limitations as recited in the base Claim 1, from which claims 2 – 10 depend.

Hoffman teaches an air cleaner having "a filter cartridge having a generally cylindrical filter medium which defines a cylindrically shaped core space, and a pair of end caps fixed to opposite ends of said filter medium, at least one of said end caps being annular and having an interior cylindrical surface defining an interior space in alignment with said core space," column 5, lines 35-43 (emphasis added). Hoffman further teaches the "filter cartridge is sleeved over said rigid core element such that...at least one of said end caps is removably mechanically coupled to said base of said support core assembly...and a reusable support core structure," column 5, lines 58-62 (emphasis added).

Hoffman does not teach a fully disposable filter cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. In contrast, Claim 1 includes these limitations.

First, Claim 1 includes the limitation that the "improved air cleaner is disposable." This claim is distinctive from Hoffman because the language "disposable" indicates that the air cleaner has no removable parts and the *complete* air filter unit is disposable, while Hoffman teaches a removable end cap mechanically coupled to the base of a support core assembly, and a reusable support core structure. Claim 1 and its dependent claims are directed to an invention

that has the advantage of being entirely disposable whereas Hoffman requires a generally complex and time-consuming procedure for the replacement of certain parts of the air cleaner. Moreover, Hoffman would likely require additional tools to replace the enclosed air filters, unlike the claimed invention (paragraph [0028] of the published application). Claim 1 is limited to an entirely disposable air cleaner with no removable parts. Applicant respectfully submits that Claim 1 and all claims that depend therefrom are therefore allowable.

Second, Claim 1 includes the limitation “lower retaining segment and said air cleaner coupling means are integrally formed from a single material.” This language is distinguishable from Hoffman because the language “integrally formed from a single material” denotes that the “end caps” of the invention are molded. As a result, the invention of Claim 1 is advantageous in that it does not require pipe thread sealant nor Teflon tape to assure a positive seal. In contrast, Hoffman teaches only “a pair of end caps fixed to opposite ends of the filter medium,” column 5, lines 8-9, and “at least one of said end caps is removably mechanically coupled to said base of said support core assembly,” column 5, lines 58-61. Thus, Claim 1 and its dependent claims are directed toward an invention that has the advantage of being comprised of two segments molded together, while Hoffman teaches an air filter where all the components are separate and must be mechanically joined together. This can be clearly seen in Figure 1 of Hoffman. Applicant respectfully submits that Claim 1 and all claims that depend therefrom are therefore allowable.

The Examiner relies on Hoffman to disclose the limitations as recited in Claim 13, from which claims 14, 15, and 16 depend.

Hoffman discloses, but does not claim, that “the filter cartridge may be physically sleeved over the metal core to allow the threaded boss and the threaded bore of the end cap to mate with one another by relative turning motion therebetween. In this regard, the mated threads of the boss and bore are most preferably such to allow approximately one-quarter turn coupling. That is, seated coupling of the threaded bore and the boss is accomplished with only about one-quarter (i.e., about 90°) relative turning movement or rotation therebetween,” column 3, lines 31-42 (emphasis added).

In contrast, amended Claim 13, upon which Claim 14 – 16 depend, teach a method of coupling an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. As discussed above, Hoffman does not teach a fully disposable filter

cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. In contrast, Claims 14 – 16 includes these limitations. Thus, Applicant respectfully submits that Claim 14 and all claims that depend therefrom are therefore allowable.

### **Claim Rejections – 35 U.S.C. §103**

Responsive to the Examiner's rejection of Claims 11, 12, and 17-20 under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,096,207 by Hoffman, Jr., et. al. ("Hoffman") in view of U.S. patent application publication 2003/0066424 by Shah, et. al. ("Shah"), Applicant respectfully requests reconsideration. To establish *prima facie* obviousness of a claimed invention there must be some suggestion or motivation to combine reference teachings, and all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Amended Claims 11, 12, and Amended Claim 17 from which Claims 18 – 20 depend, are distinct from the device taught by Hoffman for the reasons stated above in the section under the heading, "Claim Rejections – 35 U.S.C. §102."

First, Hoffman does not teach a fully disposable filter cartridge with no removable parts, wherein a lower retaining segment and said air cleaner coupling means are integrally formed from a single material. Claims 11 and 12 depend from Claim 1. Claim 1 includes these limitations. Shah, teaching a filter retaining segment having a gripping means, does not overcome these deficiencies in Hoffman. Applicant therefore respectfully submits that Claims 11 and 12 are allowable.

Second, Amended Claim 17, from which Claims 18 – 20 depend, teaches a method of removing an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. Hoffman singularly teaches a method of coupling. In addition, amended Claim 17 teaches a method of removing an improved disposable air cleaner structurally configured in accordance with the invention of Claim 1. As discussed above, Hoffman does not teach all of the limitations of Claim 1. Therefore, Applicant respectfully submits that Claims 17 – 20 are in condition for allowance.

Applicants appreciate the opportunity to call the Examiner but believe that this amendment to the claims and the forgoing remarks fully address the issues raised by the

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Examiner. On the other hand, the Examiner is invited to call the undersigned attorney if he has any matters to address that will facilitate allowance of the application.

Applicants respectfully request favorable consideration and that a timely Notice of Allowance be issued in this case.

In the event that Applicant has overlooked the need for an extension of time, additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefore and authorize that any changes be made to Deposit Account No.: 50-3010.

Respectfully submitted,

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